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THE COMMISSION OF CONSERVATION

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THE FUTURE OF OTTAWA

II

ZONING OR DISTRICTING AS PART OF THE OTTAWA CITY PLAN

IN the first part of this article, which appeared in the last issue of *Town Planning and Conservation of Life*, reference was made to the subject of zoning as part of the city plans of Washington and Ottawa. In referring to Ottawa and Washington together the statement was made that both had good general plans for their development, but that these plans did not deal with the important question of zoning. While this statement is true of Washington, it is only partially true of Ottawa, as the report of the Federal Plan Commission and the excellent plans prepared by Mr. E. H. Bennett, of Chicago, devoted considerable attention to the needs of zoning, and gave an outline of a scheme to separate residences, industry and business. The matter is dealt with in the chapter entitled "District Control" and drawing No. 9. What was intended to be conveyed, and should have been more clearly stated

C.p - Canada. Ottawa
Districting - Canada, Ottawa.

by the writer, was that a definite scheme of zoning was needed to give effect to the recommendations and plans of the Federal Plan Commission. Credit must be given to the Commission and their experts for having dealt with the preliminaries of a zoning plan, but their suggestions should have been followed up by a detailed plan or the preparation of a zoning by-law in accordance with the Ontario statutes.

As stated in the previous article Ottawa has more reason for a zoning plan than Washington, which is now having a zoning plan prepared. In Ottawa several apartment houses are now being erected, with the direct result of destroying the amenities of residential districts and property values. As every community which desires to promote its permanent welfare is interested in the increase of home-owners, it is unfortunate that the one serious obstacle to home-owning in Ottawa is the lack of security for protecting the surroundings of the home. Some such security is obtainable at Lindenlea under the scheme of the Housing Commission, but not so in any other part of the city—even where the most expensive residences are erected.

SKYSCRAPERS DO NOT PAY

In connection with the need for restricting the height of buildings, an interesting light was thrown on the economic aspect of the sky-scraper at the annual convention of the National Association of Building Owners and Managers. At this convention, held in Minneapolis on August 11th, Mr. Edwin S. Jewell, of Omaha, declared that low buildings were more profitable than sky-scrapers. He showed that they were more marketable when a change of conditions took place in the character of the neighbourhood. Among other things, he said, "the money put into elevators, heavy framework and other incidentals necessary to the erection of a sky-scraper would pay for a good practical office building four to six stories high covering the same piece of ground." He pointed out that low buildings spread the business districts of cities over wider areas, raised land values, prevented congestion and promoted safety. He said that the study of revenues from a large number of office buildings in more than fifty cities, in 1919, showed an average income of about $1.41 per square foot in respect of 143 buildings, whereas it would require $2.64 per square foot to make the investment realize 6 per cent.

Ottawa is at the stage when the need is evident for controlling the character, density and height of its buildings. The city, even in the central districts, is still in the making.

PROPOSALS OF PLAN COMMISSION

The Federal Plan Commission advocated that restrictions should be applied to create six districts, namely:

(*a*) Industrial areas.
(*b*) General railway and transport areas.
(*c*) A central business district to include retail, wholesale and light industry.
(*d*) A central residential district.
(*e*) An outer or general residential district.
(*f*) A suburban residential district at present unplatted.

The study made by the Commission should be followed up by a more careful and detailed study of the city and by the preparation of a zoning plan and by-law prepared in accordance with provincial law.

NEED OF CO-OPERATION

In the preparation of such a scheme it is essential that there should be as much agreement as possible between the city and the citizens, including the owners of real estate. Therefore, a zoning plan requires that numerous conferences be held in the different parts of the city to be

affected by the restrictions However excellent a plan may be, it is likely to prove ineffective and unworkable if an attempt is made to impose it on the city against the will of a substantial majority of those interested both in the well being and in the economic stability of the city. A zoning plan is part of a general city plan, which must be based on the co-operation of all citizens.

Now that the citizens of Ottawa are settled down to comparatively normal conditions, and are facing the problem of the further growth and development of the city during a period of peace, surely it is of vital importance that the work of the Federal Plan Commission should not continue to be ignored and forgotten. The Commission was appointed to prepare a plan, but the step was not taken to appoint any committee or commission to consider how and by what means it was practicable to give effect to the recommendations of the Commission. Yet the real work of planning Ottawa will only begin when some body is invested with the responsibility of considering the practical application of the Federal Plan. There is no part of that plan which is more pressing than that which relates to zoning, and consideration should be given at an early date to the question of how it can be dealt with as part of the scheme for regulating the future growth of Ottawa.—*Thomas Adams.*

NEW HOUSING ACT IN ONTARIO

ACCORDING to official reports, 1,184 houses were built in Ontario in 1919 under the terms of the Federal loan and the Ontario Housing Act of 1919 at an average loan per house of $3,106.40, or a total of over $3,500,000. The amount appropriated to municipalities by provincial orders in council was over $10,500,000. It was also estimated that to meet all requirements of the various municipalities for 1920 about $8,000,000 extra would be required. The province's share of the Federal loan is $8,753,291.93, leaving about $10,000,000 to be provided from other sources. Of this amount the province of Ontario has agreed in an informal way to provide two million dollars.

To provide for the housing needs unmet by loans already arranged, or when Ontario's share of the Federal loan is exhausted, the province has enacted this session the "Municipal Housing Act, 1920." Amendments to the Ontario Housing Act of 1919 provide that its provisions shall apply only to such municipalities as were already operating under the 1919 Act before the Municipal Housing Act, 1920, was passed.

The latter Act is very similar to the Ontario Housing Act of 1919, except that instead of enjoying the Federal Loan at 5%, debentures issued by the municipalities, and guaranteed by the province, will probably mean money at 6% to the owner building a house. Also, while the maximum costs of house and land for solid construction, under the 1919 Act is $4,500, under the Municipal Housing Act of 1920 it is $5,100. The maximum cost for the purpose of loans on frame and veneer houses will be practically the same as prescribed under the terms, as amended, of the Federal project.

A commission appointed under the 1919 Act may be appointed, by by-law, a commission under the Municipal Housing Act. The Ontario Director of Housing considers that about 50 per cent of the commissions operating under the 1919 Act will also operate under the Municipal Housing Act, and that probably some 3,000 houses will be built this year under the two Acts. It is stated that but for the high cost of construction, probably 10,000 houses would have been built in Ontario under the Act.

TOWN PLANNING IN SASKATCHEWAN

PROVINCIAL legislation in town planning and rural development was adopted by the province of Saskatchewan in December, 1917, giving the Director of Town Planning, under the Department of Municipal Affairs, the power to call upon any city, town or village within the province to prepare an orderly plan for its future development, so that the expensive mistakes, the disorder and ugliness that have so often characterized the growth of towns and cities might be avoided in the province of Saskatchewan.

To an orderly mind, which appreciates the value of method, system and economy in effort and expense, such a step is but a natural and logical outcome of what the whole world is learning of the benefits of town planning.

Speaking from a purely business point of view, Mr. L. K. Sherman, President of the United States Housing Corporation, stated recently at a Chicago conference: "We have learned that proper town planning and planting can increase the selling value of a house more than any other dollar of investment."

From a social point of view the development of a town plan may be so guided and guarded that the social evils, which are the despair of the modern city, may be prevented and 50 per cent of infant life may be saved.

Each of these considerations is worthy of regard. Business must be carried on; the preservation and enrichment of social life means conservation of human energy and human happiness. These are all legitimate considerations for those who have the public responsibility of shaping the nuclei of future towns.

To achieve these ends the surest, quickest and most just way would seem to be by the method of law which is believed to be the embodiment of the will of the people, as expressed through their representatives. Compulsion of law for the preservation of life had to be applied to factories and workshops many years ago. The town is a factory and workshop for the making of a citizen. The ideal of law is the protection of those who are not able to protect themselves.

Herein is the philosophy of a compulsory town planning law.

Let a town grow up on the method of land sweating and for the supposed benefit of a few real-estate owners only and sooner or later the price will be paid in the waste of life and by men and women and children who were not in the least responsible for the conditions that demanded their sacrifice. Here is an illustration of what may happen in the absence of town planning law. It is given on the authority of Miss Alice Fitzpatrick, daughter of the Lieutenant-Governor of Quebec and Secretary of the Anti-tuberculosis Branch of the Red Cross, in her report of conditions in the city of Quebec in May of this year:—

"A family of fourteen, sleeping in three beds in two rooms, ten children, boys and girls, sleeping in one room, the father, the mother and two other children in one bed in the other room. Another case is that of a tubercular woman of 66, whose brother, a half-wit, sleeps in her room on the floor. This woman, who owns the house, rents the other three rooms to a widow with nine children and she is tubercular as well as her children."

It is a belated question now to ask whether a province has a right to make such waste of life impossible. The modern question is whether it has a right to allow it to proceed.

The compulsion of the Saskatchewan Town Planning Act is not from without; it is compulsion by consent. In introducing the bill the Hon. Geo. Langley said: "We have not drawn the bill without consulting

VIIC.p— Canada. Saskatchewan

with our city, town and municipal authorities, and they are generally agreed that the provisions of the Bill are fair and workable, and, if properly put into effect, something like a reorganization may be made in the plan of our cities."

From all villages, towns and cities in Saskatchewan the province will have power in December next to ask for by-laws that will:

(1) Fix the building lines of all existing roads and all new roads so as to preserve the utility and beauty of streets;

(2) Reserve land for new thoroughfares that may be needed later in the interests of future civic economy;

(3) Reserve land for parks and open spaces so that there will be always room for children and adults to play;

(4) Limit the number of separate family dwellings to the acre and the percentage of the building area on the lots, so as to prevent overcrowding and slum conditions;

(5) Set aside certain districts or zones for different civic uses, such as industry, commerce and residences, to prevent destruction of home values;

(6) Classify agricultural land into different uses, to prevent waste of human energy on unprofitable soil;

(7) Prohibit the carrying on of noxious trades or manufactures or the erection of bill-boards among the residences of the people; and,

(8) Regulate the width of streets according to their uses, in order to save the expense of unnecessarily wide roads.

Saskatchewan has never passed a single law that will so profoundly affect her destiny or add more to her fame as a democratic province governed by the people and for the people. The potentialities of the new law for human good are incalculably great. It is a new liberty that is being sought, the liberty of men and women to breathe clean air and have room to live in decency and comfort. The fulfilment of the law will depend, to a large extent, upon the quality of the officers who have charge of it, and these are the people's representatives, but it will also depend upon the local organizations, social welfare societies, churches and clubs, and the price of the new liberty from the tyranny of land-sweating will be eternal vigilance.

There are signs already that Saskatchewan is rising to its opportunity. The Town Planning Department of the Government has prepared for exhibition at Regina a plan and model by-laws for Indian Head, showing its present development and the lines of town planning progress that may be followed. Together with this model plan are illustrations of development of municipally owned land where the property has been improved on town planning lines.

A town plan has also been prepared for the townsite of Naicam, on the Lanigan northeasterly branch of the Canadian Pacific railway. It is expected that this town will reach a population of 300 in one or two years, as it is to be the end of construction and is located in an excellent farming country. The town plan consists of four blocks, and the new social outlook is indicated by the arrangement for a public reserve for the recreation of the people. In the residential portions the lots will be 50 feet wide and 120 feet deep. The main street will be 100 feet wide, with the station at one end and the public reserve at the other end so situated that any building located thereon will be in effective view of the street and the station.

The secondary business streets will be 80 feet wide, the main residential streets 66 feet wide, and secondary streets 50 feet wide. There will be a restriction of industrial developments, such as lumber

yards, livery stable, blacksmith shop, etc., to a definite locality in touch with the railway.

Here are some of the first principles of town planning. The ambitious citizen and business man should not need to be reminded that standing now almost at the beginning of the town planning movement, the adoption of town planning will be itself a considerable business asset.—*Alfred Buckley.*

BUILDING SHOULD PROCEED

UNDER this caption the *Canadian Municipal Journal* quotes with apparent approval an article from *Canadian Finance* in which it is stated that the home building carried on in 1919 in the larger cities of Western Canada was of a negligible quantity and that the maximum grant for building houses should be raised by the Federal Government. Referring to the Federal grant and to the conditions of the loan it is stated:—

"Among these stipulations were a number relating to the maximum amount to be advanced on certain classes of houses. The maximum amount allowed is as follows: On frame dwellings of 4 or 5 rooms, $3,000; and 6 or 7 rooms, $3,500; on brick, tile, or concrete dwelling of 4 or 5 rooms, $4,000; and 6 or 7 rooms, $4,500.

"At the time the regulations were made it is questionable whether the maximums were placed as high as conditions required in Western Canada, but at this rate there is no question that the maximums need revision. During 1919 the cost of building increased at least 20 per cent, and experts declare that there is no likelihood of these costs decreasing during 1920 and they even assert that costs will increase during 1921 and continue with an upward tendency for several years thereafter.

"Many persons who were ready to build homes have refrained from doing so, because they expected the cost of building to decrease. The experiences of 1919 have shown that these expectations were not based on good foundation and the knowledge that costs will not decrease during 1920 places the prospective home-builder in the position where he should decide to commence construction this year. It will not pay to wait. Costs are high now but they will be higher later on.

"We therefore suggest that the man who can afford to build his own home should do it now. We also suggest to the Dominion officials that it would be wise to revise the conditions of the housing scheme so as to make it attractive to the man who wishes to build, but cannot unless he receives assistance."

The argument of the article is unquestionably cogent. The application of it is intended for western conditions, but though housing activity has been greater in the east than in the west, a plea for swifter progress throughout Canada may well be presented. The suggestion that the maximum amount allowed for the building of houses should be raised is rather belated, since this action was taken by an order in council of the Federal Government on March 27th, 1920.

By this order in council the maximum grant for detached or semi-detached dwellings, with walls constructed wholly or partly of frame, stucco on frame, or brick veneer, inclusive of the capital value of the site and necessary local improvements, is increased from $3,000 for houses with four or five rooms to $3,500, and with six or seven rooms from $3,500 to $4,000.

A similar amendment was passed on August 23rd, 1919, providing for grants of $4,000 for houses of four or five rooms, and $4,500 for houses of six or seven rooms having walls of cement stucco, of approved

construction, or of brick veneer, and with roofs of first quality of wooden shingles when laid on asbestos paper, subject to such houses being on lots of not less than 3,000 square feet in area. Under the original scheme not more than $3,500 could be loaned on such houses, the larger amount being available only for solid brick, concrete or stone houses. The reason for this amendment was the high cost of building construction, so that greater latitude had to be given and somewhat different standards permitted in regard to material.

Housing Progress

The housing accomplished under the Federal grant cannot be considered a negligible quantity though it is far from adequate. Progress has been made in two directions—in the building of houses and in promoting a housing conscience in the country. If that progress is continued and extended the opportunity has been created of building up a national housing policy in Canada of a very superior kind. While subsidies have been granted to private builders by the British Government, amounting to $1,300 per house, the Canadian project does not threaten any serious loss to the country while it does create the machinery and provide the capital for building houses. The Director of Housing for Ontario states in his report: "In nearly every municipality where houses have been erected the monthly payments for principal and interest, including taxes and insurance, are less than the rentals for similar houses in the same municipalities."

With the aid of the Federal grant 1,354 houses had been constructed, according to the returns at the end of March, and since that time the building of houses under the grant has been the most active since the initiation of the movement. In Ontario there were built 1,184 houses, Manitoba 77, British Columbia 50, New Brunswick 33 and Quebec 10. According to information available, nearly 5,000 houses are under plan for construction this year. In Ontario nearly 100 municipalities have passed housing by-laws and are busy with housing schemes. An additional loan of $25,000 was made to Quebec on May 17, making a total for that province of $85,000, and a further grant of $200,000 was made to British Columbia on June 5, making a total for that province of $950,000.

On May 14 the Saskatchewan housing scheme was submitted to and approved by the Housing Committee of the Cabinet.

For more than a year the Dominion loan has been at the service of the provinces and through them of the municipalities but only about half of the loan has been demanded by the provinces.

Municipal Housing

The reason for this inaction on the part of some of the provinces was doubtless due to the fact that a project for municipal housing was regarded by many persons as revolutionary. It had to meet and overcome the powerful objection that, as hitherto the provision of housing had been regarded as the prerogative of the building industry, any government action was an interference with private trade. The answer, obvious and conclusive, was that private enterprise had practically ceased to operate in the construction of workmen's dwellings, and any further reliance upon the supposed potency of the law of supply and demand was perilous and impossible. Private enterprise had abandoned the task because there was no money in it. Capital had found more remunerative channels and the people were not being housed. Cumulative evidence showed that the housing conditions of most towns and cities were a menace to the health and welfare of the people and to the

nation at large. In the interests of the race, housing had to be accepted as a national responsibility.

Some of the strongest objectors gradually yielded to the logic of an urgent human need. Journals that had opposed the project, as time went on, favoured municipal housing. A similar fight had once to be waged and won for national education. It was once passionately urged that it was every man's duty to pay for the education of his children and the state had no responsibility. But statesmen saw how vitally important it was for the welfare of the state and every member of it that children should be educated and that national education could be better accomplished by national machinery. It was realized that ignorance was the parent of disease, misery and crime and that in organized society no man could escape the consequences of these evils.

The same logic is at present establishing the necessity for national housing. As men have to pay for the education of their children in another form so they will have to pay for their housing, but, as the war amply demonstrated, objects can be achieved by massed movement that could not have been achieved by individual effort. Now it is argued that crime hides itself and breeds in the slums of the cities, and housing surveys are building up statistics that make the argument irrefragable. The tone of the press may be illustrated from a quotation from the *Vancouver Province:*—

"City authorities are occasionally invited to take some action against the advance in rents on the houses occupied by working men. The city would be in a better position to intervene if it had not confessed its own inability to provide cheaper houses with money offered by the Dominion at low interest. It has been explained that houses so built and sold without profit to families with payment made as rent over long periods would cost the worker more than he could afford to pay. The inference is that working men can better afford to rent houses at the present price than to accept the best terms that the city could make under the most favourable conditions. This is poor encouragement to investors to build houses to be rented at present prices, and no encouragement to workers to build homes for themselves. It would have been well worth while for the city government to take hold of this housing project and work it out promptly as far as the money went, while labour and materials were lower in price than they are now. Even at a later stage it was a weakness to accept a partial failure."

Possible Modifications of the Scheme

It may be said that delay in taking advantage of the Federal loan was not unnatural in the face of the individualism that has always been a part of the Canadian national character. It is no longer being said that the foundation of the Federal loan for housing was a mistake, while the disposition to make use of it is growing stronger. It may yet be necessary to modify the scheme. One of its weaknesses is the lack of provision for lending money for housing to soldiers and working men living in rural areas where the local council is not willing to work under the scheme. Such cases could be met by some arrangement for loans to be granted direct by the Provincial Government to the individual.

There is also a clause in the original Act which states that "public money may be advanced for building houses on sites owned by housing societies or companies comprising groups of citizens associated to promote good housing, supplied with proper improvements; such societies or companies to have a statutory limitation of dividends payable on stock of not more than 6 per cent.

SOLDIER COLONIES

IN 1917, during the most strenuous days of the war, an attempt was made in the Report on *Rural Planning and Development*, published by the Commission of Conservation, to outline some of the principles that should govern the settlement of returned soldiers. It was pointed out that, after many soldiers had returned to their previous occupations or had been absorbed into the industrial life of the cities, there would still be a large number for whom some organized provision should be made—as a national obligation. It was stated:

"In view of the large number of men who have a taste for industrial pursuits, who have learned discipline and precision, who have seen the advantages of co-operation and social intercourse, it will be essential for some step to be taken to organize the development of new towns or to assist in the extension of existing towns where such men can be provided for. Even those who will want to take up farming will prefer to do so in close proximity to an existing city or town where intensive culture is practicable and better social facilities can be obtained.

"Until development schemes are made it is not likely that the settlement of isolated groups of returned soldiers in rural districts will succeed, no matter how liberal the terms may be that are offered by the governments. The areas available for free homesteads are for the most part in remote regions, where success is difficult because of want of proper means of communication. The returned soldier will need social intercourse and good facilities for educating his children, and these must be provided wherever settlement is permitted; they cannot be provided in small artificial colonies, or without closer settlement over wide areas, better roads, and the expenditure of capital in planning and developing large areas of the land."

In many parts of Canada for generations inexperienced men have been settling on land with no knowledge of soil values and no prospect of transportation and community life. Mr. F. C. Nunnick, Agricultural Adviser to the Commission of Conservation, reporting in 1917 on the excellent work that has been done in New Brunswick in land classification for the benefit of settlers, says:

"In the past, the provinces administering their own Crown lands and the Dominion have, in many instances, allowed the settler to take up land unsuitable for agriculture. In some cases, it is true, the applicant did not care about the quality of the soil so long as he could get the timber, but, on the other hand, settling on unsuitable land has resulted in many disappointments and failures by men who really wanted to farm.

"In taking up Dominion land, the onus of choosing is placed upon the settler. If he knows poor soil from good soil he will not make a mistake, but the man from the city or elsewhere, who knows nothing regarding soils, should be protected. Deserted farms, with their crumbling shacks, tell plainly the story of the failure of those unable to properly choose their farms. These men should be advised and assisted. It is too much to expect that all these mistakes can be righted, but something should be done to prevent their recurrence in future."

The closer settlement for co-operative and social purposes recommended by the Commission of Conservation for years would have at least restrained the tide of depopulation of the rural districts of Ontario and saved the settlers from the isolation of themselves and their families to which the soldiers should not have been submitted. But there appears to be still an assumption that such a scheme can be made successful without a comprehensive plan of development in advance.

√ II Land settlement

In *Rural Planning and Development* it was said with reference to Ontario conditions:—

"Having regard to its seriousness, and to the train of evils which follow as a result of failure in land settlement, everything possible should be done to safeguard the country against such consequences. The wasted energy and capital of settlers who break down in a losing fight against natural obstacles is only a small part of the loss to themselves and their country; there is also the physical and moral deterioration which seems to set in, in every poor agricultural district; there is the loss of hope in themselves and their broken faith in the capacity of the land to give them a living. Children who grow up under such conditions are often worse housed, worse cared for and worse educated than children in the city slums. When people reach this condition they warn other people off the land, both by their appearance and by the accounts they give of their hopeless struggles."

KAPUSKASING SOLDIERS' COLONY.

The reasons given for any failure that may have occurred in connection with the establishment of the Kapuskasing Soldiers' Colony in Northern Ontario, show that the absence of planning and land classification was chiefly responsible for the alleged mistakes and difficulties. This colony was started as recently as 1917. Whatever may have been the defects of that experiment they were technical rather than political in character.

Mr. J. P. S. Ballantyne, Superintendent of the Dominion Government Experimental Farm across the Kapuskasing river from the colony, stated at the investigation into the project that the choice of site was a mistake. The first step in rural planning is to choose the right site. The evidence of the inquiry shows that such raw land settlement was not capable of providing a livelihood for returned men without an amount of preparatory work estimated by the Investigating Commission at four or five years for the clearing and draining of the land. If a scheme had been prepared in advance it would have shown that the cost of developing the site would have been too great and would have caused the selection of another site.

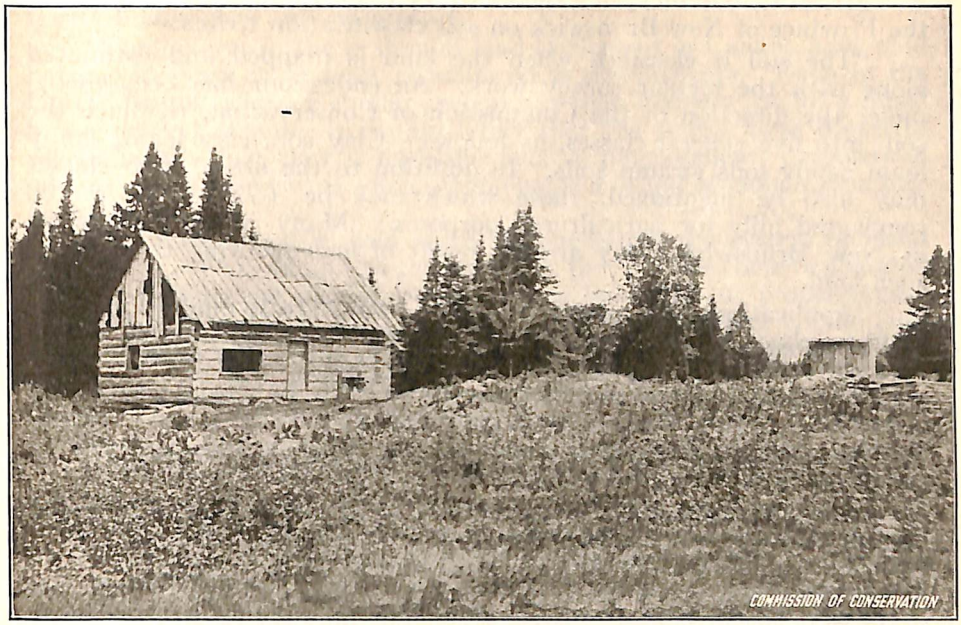
The crops of the settlers were ruined by frost, while those of the Experimental farm just across the river suffered no injury because proper draining methods had been adopted. Here again the preliminary data that was needed to prevent this result was wanting.

It was natural that the neglect in preparing a plan was followed by absence of coherence of policy or such reasonable co-operation between officials and men as would have created loyalty and promoted moderate contentment.

The essential primary step should have been the creation of a plan of development, based on land classification, such as is being carried out in New Brunswick.

"In New Brunswick a survey of Crown Lands for the purpose of classification was inaugurated in 1916. The object of the survey was to estimate the amount of timber on the land and to delineate the land suitable for agricultural development. An Act passed in New Brunswick in 1912 created a Farm Settlement Board, which is authorized to purchase abandoned farms, improve them and erect buildings thereon, afterwards selling them to *bona fide* settlers.*

**Rural Planning and Development*, p. 69.



AN ABANDONED FARM IN ONTARIO.

Failure was due to an endeavour to make a living on land unsuitable for agriculture, which should never have been thrown open to settlement.
From *Rural Planning and Development.*

A FIELD OF CELERY ON A PROSPEROUS ONTARIO FARM.

Many acres of equally good land are lying idle as a result of speculation and want of proper planning.
From *Rural Planning and Development.*

Mr. F. C. Nunnick, in a report to the Crown Lands Department of the Province of New Brunswick on soil classification writes:—

"The soil is classified when the land is mapped and estimated along with the regular survey work. An endeavour has been made, under the direction of the Commission of Conservation, to place the soil into five general classes, as follows:—Clay soil, clay loam, sandy loam, sandy soils, swamp soils. In addition to the above, two classes may also be mentioned, those which may be too rocky or too rough and hilly for agricultural purposes. Many abandoned farms in New Brunswick today are the result of endeavouring to farm on such land.

"Applications for a new settlement of from 20 to 30 families presents another phase of the question. Unless the proposed area is within reasonable distance of good transportation facilities and the soil fairly suitable for agricultural purposes it would seem to be unwise to open up settlements. The abandoned farms and abandoned areas already existing in New Brunswick emphasize the wisdom and necessity of exercising great care in this connection.

"The increased activity in the soil classification work during the past season came as an agreeable surprise. The increased number of applications by returned soldiers through the Farm Settlement Board has indeed made it necessary to give the matter greater attention and has made the selection of suitable land for this purpose a problem in many cases. The fact that parts of the settled sections of the Province contain good farming land while social or economic reasons make it necessary to select land in other parts of the Province makes it all the more difficult. However, I am of the opinion that the Government in adopting the policy of sorting out only the best of the soil in counties where the lighter sandy soils exist has followed the only fair and just course in regard to the future of the Province and individual."

A careful and competent observer from another country who visited the Kapuskasing colony has said that enquiries at the settlement and in Toronto did not disclose any effort of a scientific nature to determine the character of the soil as a basis for the allotment of the land. The land was divided into 100-acre rectangular lots, regardless of the particular nature of the ground at any location. The form of the lots was only modified by the interruptions of the river, lake or railway. Each man was allowed to select his own lot. Land classification, says this observer, was one of the omissions at Kapuskasing. Land classification, he says, should have been followed by town planning, and town planning cannot be begun until land classification ends. There should have been a survey following the location of rivers, lakes, railways, etc., and also the location of muskegs and other definite variation of the soil. He could see no attempt at the formation of an efficient agricultural community.

The important fact is that, in addition to land survey and land classification where settlement is contemplated, there should be prepared a plan of social development and transportation that would have regard to the social needs and living conditions of the future community, that is to say, the principles of town or rural planning that are now receiving world-wide application should be applied in advance of settlement to any project that contemplates the establishment of community life. In the case of returned soldiers particularly, provision for community life should have been one of the first considerations. In British Columbia these facts are being recognized and soldier settlement is proving a success.

This was urged in *Rural Planning and Development* with every possible emphasis and reiteration.

"The defects in the system of land settlement in Canada have only become evident or at least pronounced in recent years. Even in the United States, where a similar system has been in operation for a much longer period of time, it is only lately that the people have begun to recognize the fact that a scientific plan of development, prepared in advance of settlement, is essential to enable a sound economic structure to be built up.

"Whatever may be said as to the success of the system of Land settlement in Canada up to a certain point, the time has come to abandon careless methods of placing people on the land without proper organization and careful planning. If the farmer is to be kept on the land he must have the kind of organization and facilities provided for him to enable him to make profitable use of the land."

SAFEGUARDING RURAL WATER SUPPLIES

THAT the question of proper protection of rural water supply is of extreme importance in Canada is shown by recent statistics compiled by the Quebec Provincial Board of Health. While 59 per cent of the population of that province is served by water-works, the remaining 41 per cent relies on shallow or tubular wells. Assuming the same proportion throughout Canada would lead to the conclusion that nearly one-half of our population is supplied from wells.

Proper inspection of individual farm wells is not only important for the protection of the farmer himself and his family, but is also of vital interest to urban population. A polluted well on a farm, even 15 or 20 miles from the city or town, may be the direct cause of a typhoid outbreak in that city or town. The use of polluted water for cleaning or washing purposes may carry infection to the town through dairy products or vegetables, to say nothing of the individual carrier who may even be more dangerous.

Dr. E. G. Birge, a State official of Iowa, states that no board of health worthy the name neglects this important water problem for a minute, yet in most parts of the country improvement goes on with surprising slowness. This is due, no doubt, to the multiple activities of the state boards of health and to the fact that the public looks to them to decrease disease, and this matter of improving water supplies, either municipal or rural, is merely a coincident step in the work. This is not always the fault of the state boards of health. Usually it is largely due to apathy on the part of the public and a lack of definite co-operation on the part of other forces working toward the same end.

The task is a great one; just what the plans of such a campaign should be is a question. The present laws concerning the pollution of water relate to the water supplies of cities and incorporated towns. So far as they go they are adequate, but they do not go far enough.

The strictly rural water supply, however, and by that is meant the well that supplies the farmer's family and possibly a neighbour or two, is not brought to the attention of the health authorities, either local or state, until disease appears in the neighbourhood and suspicion points towards the supply. It is as necessary to safeguard the strictly rural water supply as the water supply of the municipality and state. Another benefit which will come from the constant supervision of the individual country water supply, is the fact that the surroundings will necessarily be kept in better sanitary condition.

INTER-ALLIED HOUSING AND TOWN PLANNING CONGRESS

THE Inter-allied Congress on Housing and Town Planning, which opened in London, England, on June 3rd, included representatives of 20 different countries. Dr. Addison, Minister of Health to the British Government, said that it was significant of the world-wide interest in and the awakened conscience of the nations on the subject of better housing that one of the first international meetings after the conclusion of peace should be assembled to discuss the housing of the people.

Representatives were present from Great Britain, Canada, United States, France, Spain, Italy, Greece, Denmark, Sweden, Switzerland, Australia, New Zealand, Siam, Norway, Chili, Roumania, Uruguay, Jugo-Slavia, Finland, Czecho-Slovakia.

Dr. Addison, in speaking of the British housing situation, said that in the passing of the Housing and Town Planning Act of 1919 a definite obligation had, for the first time, been placed upon every local authority to prepare and submit, within a specified time, a scheme for meeting the housing needs of its area, and, as soon as the scheme was approved, the local authority was required to follow the programme out.

The country's central organization had been modified and much of the work was now being done by commissions, who exercised delegated powers in eleven areas throughout the country. They had taken special steps to improve the standards of housing. A manual had been prepared providing for the planning of sites, and the aim was to reduce the density to twelve houses to the acre. Many difficulties had been met that were chiefly due to the increased cost of housing and the shortage of labour, although only 2,000 houses had actually been completed, he expected that 100,000 would be finished before the end of the year. Over 48,000 acres of land had been appropriated for sites and nearly 4,000 lay-out plans had been passed. Detailed housing plans had been approved for 187,000 houses and tenders had been definitely sanctioned for 107,000 houses.

"In the proper housing of the people," said Dr. Addison, "lies the health and contentment of every nation." He believed that whatever the cost of better housing might be, that cost would be saved in the prevention of ill-health, disease and social disorder. Good homes would mean good health, social content, increased self respect and finally loyalty to the ordered progress of society. The Inter-allied Housing and Town Planning Congress, said the *Westminster Gazette*, was of international importance since its object was to study the effect of the housing problem upon the life and progress of the nations.

Mr. Lawrence Veiller, of the United States National Housing Association, said that the honour of creating that wonderful achievement, the Garden City, belonged to England, and, while other nations had not yet followed, England was going forward to build another garden city.

HOUSING AND TOWN PLANNING IN NORWAY

Comparison With Canada

INTERESTING contributions were made on the subject of housing and town planning in Norway to the Annual Conference of the Garden Cities and Town Planning Conference held in February of this year. At this Conference there were representatives of about twenty countries. The Norwegian delegates included Sverre Pedersen,

Town Architect of Trondhjem and Christian Gierlöff, Secretary-General of the Norwegian Housing and Town Planning Association.

Early Planning in Trondhjem

Mr. Pederson described how the change in the plan of Trondhjem became necessary in 1861, after its devastation by fire. One of the interesting features of the plan—which was prepared by General Cicigion—was the division of the town into four sections by wide cross streets so as to confine fire outbreaks in each section, and the separation of the industrial area along the river from the rest of the town by a wide avenue of trees. The owners of private property had to submit to changes similar to those that have taken place in replanning the devastated area of Halifax. As in most countries the development of Trondhjem during the nineteenth century was devoid of planning, but since 1900 interest in the plan of the town has been revived. Wooden buildings are still permitted in the outlying parts but must not exceed two stories in height and have eight metres between them.

Formerly the tendency in Norway was to imitate the German flat, but recently the tendency has been towards the English pattern of small homes.

Since the war houses in Norway are being built almost entirely by the municipalities, as private building enterprise has ceased. At Trondhjem the municipality has founded a factory to manufacture wooden houses. A plan has been made by Mr. Pedersen to limit the size of the town and form an agricultural belt after the example of the Letchworth Garden City. "We do not nurse the idea" says Mr. Pedersen "that Trondhjem will grow into a large town but we wish all the more it should be a good and healthy town" and he concludes his description by acknowledging that it is the example of England, "which in these matters has advanced further than any country" that has given them inspiration.

New Tendencies in Industrial Growth

Mr. Gierlöff in his paper quotes at length from "Cities in Evolution" by Professor Patrick Geddes in regard to the development of electric energy in Norway. The words of Geddes have so much significance in relation to development in Canada in view of the increasing use of water-power that no apology is needed for quoting them in full.

"Every schoolboy knows something at least of the historic significance of Norway, that poorest of lands which, as Norse children tell, was left altogether without soil at the Creation, and so has for its few up-land farms only such few particles of soil as its kindly guardian angels could sweep up and bring thither on their wings from the leavings of the richer world. As some compensation, however, their many rivers were rich in salmon, and these taught their fishermen to venture out along the calm 'swan's path' of the fjords as sea-fishers, and in comparative safety to master the art of sailing behind their long island breakwater. Thus trained, and equipped, their merchant-history, emigration-history, pirate-history, conqueror-history follows, with what effects on Europe every one knows; but what we do not as yet sufficiently realize in other countries—whose ideas of each other are seldom less than a generation behindhand, and generally more—is how a new historical development, in new conditions, and destined to take new forms may be, and actually in Norway is, arising once more. The electric utilization of a single waterfall is now yielding 150,000 horse-power; and though this is certainly one of the very greatest, there are smaller ones almost beyond number for a thousand miles. Norway, then—which has so long seemed practically to have reached its small

natural limits of wealth, industry, and population, as to have long fallen out of all reckonings of the Great Powers, of which it was the very forerunner—has now broken through those limits and begun a development, perhaps proportionately comparable in the opening century to that of our own country in the past one—yet with what differences.

"Yet instead of Norway forming cities like ours upon these unending streams of energy, these for the most part generate but long chains of townlets, indeed of country villages, in which this strongest of races need never decline, but rather develop and renew their mastery of Nature and of life again as of old . . .

"Are there not here plainly the conditions of a new world-phenomenon and world-impulse—a Norseman aristo-democracy of peace which may yet eclipse all past achievements, whether of his ancient democracy at home or even (who knows?) his aristocracy of conquest and colonization abroad among older discouraged peoples . . .

"What are the essential applications of these new energies, besides electric lighting and power for tramways, railways, etc.? These uses are largely metallurgical—that is, on the central lines of the world's progress, from the Stone Age onwards. The electric furnace not only gives an output of iron and steel, greatly cheaper (it is said already as much as 50 per cent) than heretofore, but of the very finest quality; so that not only our British steel works but those of Pittsburg also must, before long, be feeling this new competition.

"The command of the new metals like aluminium, of the rare metals also, every year becoming more important, which the high temperatures of the electric furnace give, involves further new steps in metallurgy. Again, the conditions for labour and its real wages, in the innumerable garden-towns and villages which are springing up in these conditions, each limited in size by that of its stream, and thus continuous with glorious and comparatively undestroyed natural environment, afford an additional factor of competition, more permanently important than are those of money wages and market prices. The favourable situation of these new towns, mostly upon their fjords, is again full of advantages, and these vital as well as competitive . . .

"Further, it may be remembered how, not so many years ago, one of our foremost chemists, Sir William Crookes, called attention to the approaching scarcity of nitrogen for the world's wheat crops, associated with the rapid exhaustion of the nitrate beds of Chili, etc. But now the problem of utilizing the nitrogen of the atmosphere for the production of saltpetre has been solved, even better than in Germany, by the Norse chemists and engineers. In such ways the country, hitherto the poorest of all in agriculture, begins not only to develop more intensively its own soil but to increase the fertility of all our Northern world."—*Cities in Evolution*, pp. 51-55.

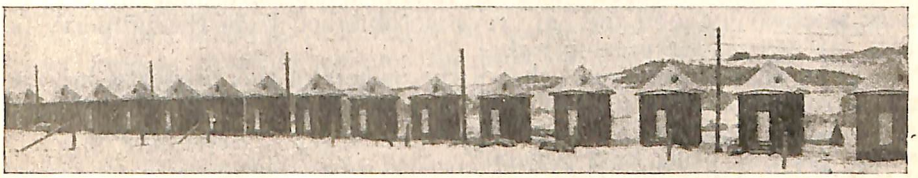
We are approaching the condition in Canada of having half of our population in the cities. Yet we wonder why in a country of such great land resources food should increase so rapidly in price. It is a revelation that ought to make us think, to read Mr. Gierlöff's statement that two-thirds of the inhabitants of Norway live in rural districts. He would arrest any further decrease in the rural population by improving the rural housing conditions. We have still to learn how important it is for Canada that we should make housing conditions in the rural districts and small villages more attractive as a means of keeping people on the land.

Christiania, with 260,000 inhabitants, built 2,500 houses between 1916-19 at a cost of $12,500,000. This gives a price of $5,000 per house. This one city alone has spent nearly half as much on municipal housing as the whole of Canada by Federal, Provincial and Municipal governments. In older countries the value of better housing as a means of arresting industrial unrest and promoting development is more appreciated than in new countries. Are we to repeat the evils of neglect of this problem in Canada and then learn our mistake by bitter experience?

The houses thus erected are let at rents *subsidized up to 50 per cent* or sold or let to co-partnership housing societies on the same basis. The method most approved is to transfer the control to a housing society. In this, as in other methods, Norway frankly takes her example from England—a thing which some Canadians seem to regard as *infra dig.* Surely if Norway, and other European countries, including even Germany, find the British example of public housing and co-operation the best to follow we should not be ashamed to do the same.

An Important Experiment

Mr. Gierlöff gives an account of an interesting housing experiment, similar to what we need to carry out in Canada. "We are, on the whole, striving to lead the building of houses into automatic channels, so that we can be assured that the building of good houses will always keep pace with the growth of the population. And herein we are looking with the greatest hope to the co-operative building movement, realizing that humanity's sole hope for better economic and social conditions depends on the progress of co-operation amongst men."



A ROW OF EXPERIMENTAL HOUSES IN TRONDHJEM.

"All the small houses shown in the above illustration are built in different materials, wood, concrete, bricks, etc., with a view to testing the qualities of each. They are built partly by the state, partly by private building-material companies. The doors are double. Outside and inside are glass doors. The windows are double. There is a cellar under each house. The houses have all the same floor space: 2.00 by 2.00 metres square and 2.25 metres high. There are 24 houses, each of different construction. Each house is heated by means of an electric stove of 2 kilowatt. By means of a thermoregulator the current consumed by each stove is automatically regulated, so that the temperature in all the houses is kept the same (for example 15 degrees centigrade or possibly lower). The amount of energy utilized in each house can be read off separate meters. In addition, the temperature and moisture in the various cavities inside the walls is measured and all meteorological data of the atmosphere outside (temperature, degree of moisture, direction and strength of wind) is also registered. To the extent in which the result of these observations suggests the desirability of further special examinations, for example, direct measurements of the quantity of warmth which under certain conditions passes through a certain wall-space, such examinations will be put into operation as the work progresses.

TOWN PLANNING AND REAL ESTATE

*Address by A. G. Dalzell, at conference of Inter-State Realty Association of the Pacific Northwest, at Spokane, Wash., July 16, 1920.

TOWN planning has been opposed in the past by those interested in the sale of real estate, because they contended that it would tend to limit the sale of land. No doubt it would; but, after the experience of the past, are even those who are interested in the sale of real estate anxious to see new "paper cities" established? Let me give one example of a paper subdivision from a Canadian city.

In a Canadian prairie city of under 50,000 people, a quarter section of land two miles from the city centre was brought within the city limits. The general assessment of farm land outside the city limits was about $50 an acre, but on being taken into the city this assessment was raised to over $1,000 an acre. When taxed at this rate, there was, of course no alternative but to subdivide the land and place it on the market as building land. A subdivision plan showed 1,465 lots, each 25 feet by 124 feet, and on the strength of this the land was sold to English investors for $249,000. The following year the assessment was raised to $320,000, or an average of $210 a lot, or $2,000 an acre. The highest price paid for a lot in the area was $350. At that time the city wished to borrow large sums to carry on extensive public works. Its charter gave it power to borrow up to twenty per cent of the assessment, which on this property would equal $64,000. As the city did not borrow up to its full limit, we will assume that on the strength of this assessment it borrowed, say $40,000, on long term debentures. Seven years afterwards the assessed value of the property was only a little over $27,000, for, whilst a few lots have been sold, no actual building has taken place. In six years the English owners had paid in taxes more than the land is now assessed for, and the only revenue obtained from the property is $50 per annum for grazing rights.

It is, of course, obvious that if the owners of this property cannot afford to pay taxes on something like the original valuation, the interest and sinking fund required to redeem the bonded indebtedness will have to be found by other land owners.

In the subdivision of this section principles were carried out which have been accepted in the past by competent real estate authorities. Richard M. Hurd, President of the Lawyers' Mortgage Company, New York, in his book "Principles of City Land Values," has this to say about the subdivision of land for city purposes:

"The unit, both as to depth and width of lot for which a plat should be built up, consists of the average shop in the business district and the average dwelling in the residence district. Since the growth of cities leads normally to the conversion of residence land into business land, a uniform system of platting suitable for business purposes throughout the entire city is generally preferable. Such a system need not necessarily lead to small holdings in the residence sections, although it has a tendency in that direction."

In the case I have quoted we have a subdivision of 1,465 twenty-five foot lots, a size everywhere condemned for residential purposes, and with only slight advantages for some business purposes. But why should land two miles from a city centre be subdivided into over 1,400 lots suitable for business purposes? Or why, if it is intended to start with residences, should provision be made for 7,000 people without a site being set aside for any school or community building, or provision being made for parks or recreation grounds?

Systematic town planning would make such a subdivision impossible, and would incidentally prevent either such an inflation or such a

VII E.p – Economic considerations.

depreciation of land values as I have described in the above city. Is this experience of English investors likely to induce further investment on their part in Canadian townsites? Land booms in western cities have almost ceased, and cities are now endeavouring to induce industries to locate within their limits. One of the greatest handicaps to industrial location in cities is the securing of industrial sites. In such a subdivision as I have instanced, a block of 40 lots, having an area of from 2½ to 3 acres, is sometimes held by 30 different owners, even if the land is still vacant. No manufacturer can afford to deal with such a multiplicity of owners, even if he can overcome the difficulties of the shallow depth of lot, and so manufacturers are forced to secure sites outside city limits, whilst much land is left derelict inside the limits, necessitating extravagant cost in the provision of public utilities, street works, and policing, and involving a serious loss of time twice a day in the transportation of workers from their homes to the workshops.

Most of the cities in Western Canada, when the surrounding municipalities are included, have sufficient land subdivided to accommodate any population that will enter the territory for many years to come. Streets and building sites have been laid out in the districts immediately adjacent to Vancouver alone, which would provide for a population half the size of the present population of the whole Dominion.

If land is to be regarded as a safe and profitable investment, and not merely as a stake for gambling, with a few big prizes and a multitude of blanks, protection must be given, not merely for the benefit of the landowner, but in the interest of the community at large. Mr. Thomas Adams, the Town Planning Adviser of the Commission of Conservation, contends that the development of city land must be restricted and controlled if cities are to be saved from bankruptcy. Many cities of under 100,000 people are developing and maintaining streets and public utilities which would serve from five to ten times the present population. Under present taxation systems the bulk of this burden falls on the owners of real estate; and this is one of the reasons why real estate as an investment of wealth has failed to attract.

The first form of protection which I may mention is "zoning." Zoning, or "districting," is an essential of city planning, and is the only possible solution of some of our most troublesome city problems. A zone which ought to be established at once in many cities is the zone of immediate development. In any city that has an area larger than that of a standard township, or cities surrounded with municipalities having large areas, and with scattered population, some area should be defined as the zone of immediate development, and public works and utilities refused to outside areas until they can be installed on a commercial and economic basis. Every city, whether large or small, if its development is to be carried out on economical lines, and if its real estate has to have a stable value, must adopt zoning. In most western cities of to-day, direction of growth, main avenues of transportation and other zone defining factors are fairly well known, and zoning is easier in consequence, and less likely to cause an injurious effect on the development of business and industry, than it would have been a few years ago. The sale of real estate in the past was facilitated by the uncertainty of future development. It is handicapped to-day by that very uncertainty, for people look seriously at the risk of loss. In nearly every city without zoning laws we find property values jeopardized by the want of restriction on the use of land. Where there is no restriction we find that industries invade the residential districts. Beautiful homes are spoiled by the erection of public garages or undertaking parlours on the adjoining lots, or by unsightly corner stores; expensive public schools

have their efficiency spoiled by the erection of noisy boiler shops or nuisance industries, hospitals are menaced by fire hazards from woodworking establishments, and the industrial establishments themselves thwart one another's development. Most cities have realized the value of municipally defined industrial areas. "Industrial island," in Vancouver, a very recent creation, made by filling in a part of False creek, has already justified its establishment, because it provides sites of suitable shape with rail and water transportation facilities.

Any city that is cursed with too great subdivision of land into 25 or 33 foot lots, will soon find that if it is to attract any large industries within its boundaries at all, some revision of these subdivisions must be made. On the other hand industries cannot exist without workers; and it is just as necessary that a section or sections of the city should be set apart for the erection of single family dwelling houses for the industrial workers, as it is that sites should be provided for the establishment of the industries. The one feature is the necessary corollary of the other. The establishment of individual homes is considered the best safeguard of the morals, the health, the wealth and the contentment of any city, and every effort should be made to provide, to protect and to preserve such homes. Large employers of labour have discovered their value in securing contented and healthy workmen, increasing the labour output, and reducing the loss through sickness, absenteeism and labour turnover.

Up till the present the securing of small homesites for industrial workers has not been well directed as a rule. Plenty of inducements have been offered to the worker to purchase land, but in many cases the inducement held out has not been the idea of establishing himself a permanent home, but that of a speculation on his part. Many workers have been handicapped for life, and have had to deprive their children of educational and other advantages, because of the drain on their income in keeping up payments on property not really fitted to serve them as a home site.

In an Ontario city of under 20,000 population, I recently investigated a subdivision where Ukrainians, Galicians, Poles, Italians and Greeks were induced to settle on land which was pre-eminently suitable on account of proximity to lake and rail transportation for industrial development, but which on account of drainage difficulties and exposed situation was an almost impossible site for ordinary city development. This land was subdivided in the usual way into small lots and sold at high prices, in fact in 1908 was selling at a higher price per square foot of building land than was paid in the same year for land in Hampstead Garden Suburbs, 45 minutes' journey from the heart of London, England, and at that time regarded as the last word in the layout of residential land in the London area. The Ontario subdivision is to-day a slum of the worst character, a collection of ugly, dilapidated shacks where the people crowd together to keep warm in the winter time, the density of population in some blocks having gone as high as 64 to the acre. It is an eyesore and a menace to the city, though the land value on unimproved areas without public utilities still stands at over $2,800 per acre and the taxation on this value is four per cent. In Hampstead Garden Suburb the land maintains its value and justifies the establishment of the estate. As one illustration of this let us compare the rates of infantile mortality.

When the infant mortality rate (*i.e.*, the number of deaths under one year per 1,000 births) in England and Wales was 109, the district of Hampstead was 85, but Hampstead Garden Suburbs was 40. In the section of the Ontario city I have referred to the rate was 250—that is, every fourth child born in the area died within the first twelve months,

and the medical officer of health says at least one-half can be attributed to the unhealthy site and defective housing.

Early in 1918 I made a study of the cost of city development of an industrial-worker district in Vancouver. I also took to compare with it a high-class residential district just outside the city limits. As Assistant City Engineer I had official relations with both, and had facilities for obtaining accurate data. A brief summary may be given here.

The working class district, now known as Ward 8, of the city of Vancouver, contains some 400 acres, and was annexed to the city in 1911. About the same time the Canadian Pacific railway was completing the development of 400 acres just outside the city limits. Both areas, however, are between two and two and one-half miles from the city centre, and they are bounded on the north and south by the same avenues. The district annexed to the city is subdivided on standard rectangular lines, mainly into 33-foot and 25-foot lots, nearly 2,400 in all.

It was occupied at the time of annexation by some 3,000 industrial workers, or people of moderate means, and there were only a very few residences which exceeded $2,000 in value. Three arterial thoroughfares traversed the district; there was thus some opportunity for speculating as to the location of business and the probable car-line streets. This led to an inflation of land values, even though the area was never controlled by large interests, but remained in the hands of many small owners. At the present time not more than five per cent of the improved lots are occupied by other buildings than residences. The price to which land soared under these conditions is revealed in the assessment, which, when it was annexed to the city and before any public improvements had been installed, was equal to $10,000 per net building acre. That this assessment was not beyond the prevailing land value is shown by the fact that the city, being compelled to purchase school and park sites to the extent of over 7 acres, had to pay an average price of more than $19,000 per acre.

Though $3,500 has been spent on street development and the provision of watermains and sewers for every building acre, the average assessed land value for the whole area is now about $8,742 per building acre. But notwithstanding this still high assessment, the whole of the revenue obtained from the property is barely sufficient to carry interest and sinking fund charges on capital expenditures. It follows, therefore, that the other landowners within the city have to bear the whole cost of the schools, fire and police protection, garbage collection, and general maintenance of the district. There is nothing in the district to call for special comment. It is the far too common type of city development, with houses, stores, and industries all crammed together in some blocks, and other blocks with hardly an improved lot, no attempt at arrangement, no building lines, no segregation of business or industry, a simple go-as-you-please, take-what-you-can development.

In the area selected by the Canadian Pacific Railway Company for development as a high-class residential district, for houses of not less than $5,000 in value, controlled by building lines and building restrictions, with all business and industry excluded, the streets were formed and surfaced, finished with cement sidewalks, boulevards planted, watermains and sewers installed with services to the property line, and yet sites were obtainable with all these improvements and safeguards at a price as low as the average assessed value of the working-class district, where there were no improvements and no safeguards.

City planning explains the difference both in the original cost and the final result. Hampstead Garden Suburb and Shaughnessy Heights were both planned as residential districts. The promoters knew that

there was a sum which purchasers would willingly pay for homesites on the property, and the selling value of the land was fixed accordingly. They knew that building regulations would wipe out a great part of the usual early speculative value, but they also knew that such regulations would stabilise the permanent factors in the value. Whilst purchasers who were unable to live on the property could only look for a moderate return from rentals, it would be fairly well guaranteed, and resale would not be difficult, thus the security would be good even if the return were low. In the subdivision of the two working-class districts to which I have referred, and in many other cases, the bait to the purchaser was the speculative element. The bait, however, often swelled to such a size that not even a whale of industry or business could swallow it.

This is an age in which "efficiency" is a great catchword. Industrial efficiency, commercial efficiency, national efficiency and personal efficiency are terms constantly before us. An industry or business noted for efficiency is certain to have a higher capital rating than one without that reputation or with a poor reputation, and the stocks or bonds representing the capital of such a concern are sure to be sought after.

If we aim to secure commercial, municipal, national,or even personal efficiency, we cannot afford to neglect city planning any longer. To begin with, there is room for change of method in the original subdivision of land, so as to secure both economy and efficiency. In the rectangular system of street layout, which is generally accepted by any municipal authority as standard town planning, the proportion of street area varies from not less than 30 to as high as 45 per cent, and the writer knows of one Canadian city where, in less than 500 acres of total area, half is community-owned. In seven typical industrial developments carried out by Mr. John Nolen, one of America's foremost town planning engineers, the average of street area is 25·7 per cent, and in two residential districts planned by Mr. Thomas Adams at Ottawa the average is under 23 per cent.

The cause of the difference in the percentage of street area is well known. In the desire to avoid the too narrow thoroughfares of the older countries, most cities here have adopted a standard width for every road, usually far too narrow for main arterial roads, and far too wide for secondary or residential streets. In most cities to-day the expense of street works and street maintenance is one of the greatest burdens of municipal taxation. By proper street planning we can reduce the area by one-third and yet get better results. Capital and annual expenditures will be saved, as well as a great amount of time which is now lost by travelling over unnecessary street space. By systematic planning we can group our industries together, the streets which serve them can be properly surfaced, the watermains and sewers adapted to their requirements, the time required for interchange of commodities between different industrial establishments materially lessened, and the time and cost of transfer of manufactured articles from factory to rail or whar greatly reduced. Much concern is often expressed over ocean freights; but it is too often forgotten that the cost of trucking a manufactured article from factory to wharf is frequently more than the ocean freight from one continent to another.

Once we secure a good industrial location, if within easy reach of it we have a district where the industrial worker may reside, he may be saved an hour a day of straphanging on street cars, he may have a home safeguarded against the intrusion of foundry or factory, and even preserved from the shadow of an apartment or tenement house. In such a residential district the streets would be so planned that the cost of constructing them and keeping them in good order would not be a burden on the homeowner. Instead of wide, dusty or muddy roads as

the only playground for the children, the area saved by the adoption of more reasonable width would be consolidated into large school playgrounds and parks. By that time we shall have gone a long way to securing industrial efficiency, through obtaining personal efficiency of healthy and contented employees.

If we have also a well established business district, all those whose commercial interests are related will be grouped together, and much valuable time saved, and the owners of homes will not run the risk of having their investments reduced by the intrusion of business houses into any residential districts.

If such plans are adopted in any city, the real estate may experience some change in values during the period of adjustment. Some values may indeed drop. Eventually, however, true values will be established, which will tend to grow and seldom decline. Investment in such real estate will be a genuine investment, bringing regular returns, and the disposal of such investment, if desired at any time, will be greatly facilitated.

Town planning in America in the past has been far too closely confined to the spectacular. There has been little thought of the social side of the subject, no clear vision of the future, no appreciation of the city as a permanent thing or as an agency of social welfare. Even to-day town planning is often misunderstood. To quote Professor Patrick Geddes:—

"Town planning is supposed by many to be a new and special branch of engineering; by others, of sanitation; by others again, of building, or again of architecture, or gardening, or other fine arts. But these differing opinions show that town planning—and let us now use its greater name of city design—is not a new specialism added to existing ones; but that it is the returning co-ordination of them all towards civic well being. It is the civic aspect of the higher and more general level of public and personal thinking which has long been here and there arising. Such more general thinking is now beginning to dominate the unorganized thought of the past and passing generations of specialists, who have been so strong in details but so weak in co-ordinating these. But such scientific philosophy lies in details taken together as factors of life; whilst the corresponding arts of life, and practically therefore of city design, are co-ordinating them towards life more suddenly.

"As the physician must make a diagnosis of the patient's case before prescribing treatment, so with the planner for a city. He looks closely into the city as it is, and how it has grown and suffered. And, as the physician associates the patient with his own cure, so must the planner appeal to the citizen—he may check and amplify the diagnosis. Successful treatment must be general and constitutional, for though every disease has many outcomes to be relieved, health is a unity, the unity of a sound mind in a sound body. How is this unity to be obtained? Are we simply to go on mainly as at present, providing as many remedies as there are diseases, and now drugging, now inoculating each other against them all, or may there not be some more general way?"

As town planners we feel that in our endeavours to secure a healthier development we must associate with us all those who are primarily interested in the material on which all our work is based—the land. If owners of land are in sympathy with our endeavours, our work will be much easier. If they are against us, our work will be difficult, if not impossible. I have attempted to show that in their own interests the support of the landowners and land agents of city planning movements is urgently required, and I feel sure they are able both to check and amplify the diagnosis I have made.

OTTAWA GARDEN SUBURB

LINDENLEA, the garden suburb of Ottawa, the development of which is being carried out under the administration of the Ottawa Housing Commission, has already established a standard for housing development. The sort of street system—if lines at right angles to each other can be called system—by which most of our housing developments have been straight-jacketed, cannot stand the competition of such projects as Lindenlea, which is but fifteen minutes' ride from the heart of the city.

Such developments are bound to have a profound effect for good throughout the country. They represent an escape from the gridiron development and give a freedom to domestic life which is spiritual as well as physical. Workers who have lived in such towns will not be content with less advantageous surroundings. Building operations must equal these developments or go out of business sooner or later.

If it is worth while, as a civic policy, to encourage escape from congestion to better and healthier living conditions, it is worth while to study out and provide means whereby recreation and neighbourship can be stimulated.

In the ten-year period prior to 1911 the population of the County of London, England, had fallen off to the extent of 0·3 per cent, whereas in the outer fringes of the metropolitan areas it had increased 33·5 per cent in the same period. This rapidity of decentralization of city population is becoming nearly as great in this country.

There is, however, an imperative need for social and recreative facilities in developments of this kind. This movement has come into prominence since the war, and must be taken into account in preparing housing and town planning schemes.

Men and women returning home from service in the army, used to the recreative huts in camp, have awakened their fellow citizens to the need for social centres, where they can meet their friends and enjoy mutual intercourse during the evenings or find means of self-expression in music, dancing or art.

Suggestions are now under consideration at Lindenlea to promote such a social community project, with the hope of realization when the Community Hall is built.

The progress made with this scheme will be appreciated by recalling that it was not until the autumn of 1919 that building operations were commenced, whereas now over 60 houses are completed or nearly so and further contracts have been placed for the erection of another fifty.

The roads are now taking shape, emphasizing the physical expression of the development; also, by utilizing the surplus rock and boulders incidental to the excavation of the houses, the wading pool is being formed. Even the casual visitor must be impressed by the rewarded efforts of the home builders' random rubble paths, grass lawns and beautiful flowers, which are only part of the evidence of the effect of community life under favourable conditions.

It is the duty of all to co-operate in a social and democratic way to create attractive local communities on the outskirts of cities wherever practicable, thereby working in accordance with the broader meaning of housing reform, defined as the furnishing of healthful accommodation purchasable at reasonable prices, adequately provided with facilities for privacy and comfort, easily accessible to centres of employment, culture and amusement, and accessible from the centre of distribution of the food supply.—*B. Evan Parry.*

NOTE:—A plan of Lindenlea appeared in *Town Planning and Conservation of Life*, April-June, 1920.

Ottawa, Canada. Lindenlea.